

Cloud Peak Energy is a Prudent Investment for NTEC and the Navajo Nation

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ENERGY VENTURES ANALYSIS

Executive Summary

The Navajo Transitional Energy Company (NTEC) has announced an agreement to purchase the assets of Cloud Peak Energy out of bankruptcy. Cloud Peak was the third-largest coal producer in the United States in 2018 (measured by tons produced); it owns and operates 3 large mines in the Powder River Basin (PRB) coal field. Cloud Peak filed bankruptcy because its high debt burden made it unable to withstand short-term problems that affected its operations in 2019. Because of the depressed business environment, NTEC is able to purchase these assets for a fraction of the original debt carried by Cloud Peak and has a very low investment base in the company and a high degree of upside with a modest improvement in market prices.

Key conclusions of this study are:

- 1) While the domestic market for PRB coal will continue to decline in volume, demand will exceed 250 million tons per year past 2030. This will require the continued operation of large, high-quality mines in the PRB.
- 2) The primary reason for low profitability among PRB coal producers has been the excess production capacity as the demand for coal has declined. Producers have not closed mines because of the immediate reclamation costs and instead have maintained the excess capacity. This is likely to change due to the bankruptcy of the 4th-largest PRB coal producer (Blackjewel) and the merger of the operations of two largest PRB coal producers (Peabody Energy and Arch Coal). These changes will allow for the rationalization of excess capacity and improve profitability for the remaining operations.
- 3) Utility policies to purchase coal from multiple suppliers will benefit Cloud Peak.
- 4) The Antelope mine produces the highest-quality coal in the Wyoming PRB. This coal will be a competitive supply to domestic power plants that use PRB coal.
- 5) The Spring Creek mine is uniquely-positioned to supply power plants in the northern tier of states (Michigan, Minnesota, Washington) as well as export markets in Asia. The export markets have high upside potential for Spring Creek sales.
- 6) NTEC is purchasing these mines at a very low cost. The purchased assets include almost 1 billion tons of leased coal reserves, almost 100,000 acres of owned surface lands, and a huge fleet of mining equipment (draglines, shovels, trucks and dozers). The purchase price is only \$15.7 million plus a seller note of \$40 million to be paid over time. Cloud Peak had been operating with about \$350 million in debt, which NTEC is not assuming.

In September 2019, the “Institute for Energy Economics and Financial Analysis” (IEEFA)¹ published a report claiming that NTEC’s proposed acquisition is “increasing risky.”² The “new” risk identified by IEEFA is that “customers will consolidate PRB purchases, putting smaller mines out of business entirely.” IEEFA has identified this new “risk” based on the announced merger of Peabody Energy’s and Arch Coal’s PRB operations that would give them “an instant edge over Cloud Peak” by “cornering a shrinking market for Powder River Basin coal.”

Actually, the reverse is true. The merger of Peabody and Arch in the PRB and the potential closure of the Blackjewel mines will give customers an incentive to make sure they purchase some of their supply from Cloud Peak in order to ensure diversity of supply and continued competition. IEEFA itself acknowledges this, stating “Many utilities have spread their purchases among multiple mines owned by different producers.” IEEFA merely speculates that if customers change their purchasing practices and “consolidate purchases”, this would be a risk for Cloud Peak. There is no evidence that customers will change their historic purchasing practices because these are founded in sound purchasing policies.

¹ According to its web site, IEEFA’s “mission is to accelerate the transition to a diverse, sustainable and profitable energy economy.”

² IEEFA, S. Feaster and K. Cates, “NTEC Move to Buy Cloud Peak Mines Is an Increasingly Risky Wager” (September 2019).

Table of Contents

Executive Summary.....	2
Table of Contents.....	3
Introduction	4
PRB Profitability has been Hurt by Excess Capacity.....	5
Utility Policies to Procure Coal from Multiple Suppliers will Assist the Future Sales by Cloud Peak	6
Domestic Demand for PRB Coal will Continue for Decades	8
Antelope Mine has Very High Quality Coal in the Wyoming PRB.....	9
Spring Creek Mine has Positive Export Market Opportunities	10

Introduction

The Navajo Transitional Energy Company (NTEC) has announced its agreement to purchase the assets of Cloud Peak Energy (CPE), the third-largest coal producer in the Powder River Basin (PRB). CPE filed for Chapter 11 bankruptcy in May 2019 due to the burden of its \$346.8 million of senior debt as well as recent operating problems, including:

- Export market price volatility that caused decreased demand from the company's customers in Asia;
- Spoil failure at the Antelope mine in 2018 that reduced coal production in 2018 and 2019; and,
- Flooding in the Midwest that disrupted rail service reducing coal sales.³

Cloud Peak operates 3 large mines in the PRB with 2018 sales, reserves and typical coal quality shown in Exhibit 1.⁴

EXHIBIT 1: CLOUD PEAK MINES (MILLION TONS)

Mine	State	2018 Sales	Reserves 12/31/2018	Btu per pound	Sulfur Content	Pounds SO2 per mmBtu
Antelope	WY	23.2	472.4	8,875	0.22%	0.50
Cordero Rojo	WY	12.6	285.3	8,425	0.28%	0.66
Spring Creek	MT	13.9	219.6	9,350	0.34%	0.73
		49.7	977.3			

Cloud Peak operates in two business segments:

- Owned and operated mines: coal production and sales at the mine to customers; and,
- Logistics and related services: coal purchases (mainly from the owned mines), transportation and handling services to the point of sale, primarily to international customers in Asia (primarily South Korea and Japan).

A summary of the 2018 financial results for Cloud Peak by business segment is shown on Exhibit 2. The operations generated substantial cash flow ("EBITDA" – earnings before income taxes, depreciation and amortization), but the company had large losses due to the interest payments and a write-off of assets (impairment).⁵

EXHIBIT 2: CLOUD PEAK 2018 FINANCIAL SUMMARY BY BUSINESS SEGMENT

	Owned Mines	Logistics	Other/ Eliminations	Total
Revenues	\$ 615,241	\$ 279,029	\$ (61,865)	\$ 832,405
EBITDA	71,790	21,486	(25,960)	67,316
DD&A			(61,170)	
Interest expense			(38,967)	
Other			(2,665)	
Operating income			(35,486)	
Impairments			(684,673)	
Income before taxes			(720,159)	

The net book value of Cloud Peak's property, plant and equipment at the end of 2018 was \$654.4 million, primarily for mining equipment, processing and loading facilities, and coal reserves.

³ Declaration of Heath Hill in Support of Chapter 11 Petitions and First Day Pleadings,

⁴ Cloud Peak Energy, SEC Form 10-K, 2018.

⁵ Id at page 112.

NTEC has agreed to purchase these assets for \$15.7 million in cash plus a promissory note of \$40.0 million to be paid over 5 years at 7.0% interest. In addition, NTEC agreed to pay a contingent royalty of \$0.15 per ton on coal sold from the Antelope and Spring Creek mines and on tons sold from the Cordero Rojo mine over 10 million tons per year for the next 5 years. NTEC will assume CPE's current assets liabilities (accounts payable, taxes and royalties) and its reclamation liabilities.

PRB Profitability has been Hurt by Excess Capacity

There has been a rapid decline in domestic demand for PRB coal in a very short time. From 2014 to 2019, receipts of PRB coal by domestic power plants (the major market for PRB coal) have fallen from 405 million tons to about 290 million tons. Coal producers have been forced to cut production in response to lower demand, but no mines have been closed. PRB production by mine is shown on Exhibit 3.⁶ The primary drop in output is at the Wyoming PRB mines supplying the commercial market (as opposed to mine-mouth power plants), where production fell from 372 million tons in 2014 to a rate of just 250 million tons in 2019. As a result, the excess capacity has weighed down mine profitability with low prices and higher costs from operating mines at low levels.

EXHIBIT 3: PRB COAL PRODUCTION BY MINE (1000 TONS)

State	Company	Mine	2014	2015	2016	2017	2018	2019 H1
Montana								
MT	Cloud Peak	Spring Creek	17,338	16,987	10,245	12,726	13,768	5,681
MT	Lighthouse	Decker	3,412	2,981	3,202	4,158	4,760	1,560
MT	Westmoreland	Absaloka	6,558	5,535	4,158	3,574	3,828	1,496
			27,308	25,503	17,605	20,458	22,356	8,738
Wyoming								
WY	Arch Coal	Black Thunder	101,017	99,451	67,890	70,513	71,135	33,160
WY	Arch Coal	Coal Creek	9,414	7,840	8,180	8,963	7,988	1,126
WY	Blackjewel	Belle Ayr	15,797	18,319	14,883	15,814	18,467	7,870
WY	Blackjewel	Eagle Butte	20,690	19,650	19,003	17,277	17,056	8,501
WY	Cloud Peak	Antelope	33,647	35,181	29,793	28,504	23,156	10,142
WY	Cloud Peak	Cordero	34,809	22,872	18,332	16,394	12,609	5,711
WY	Kiewit	Buckskin	15,335	13,667	7,131	14,518	13,509	8,422
WY	Peabody	Caballo	7,991	11,402	11,222	11,126	11,333	5,767
WY	Peabody	NARM Complex	117,966	109,344	92,864	101,595	98,316	39,799
WY	Peabody	Rawhide	15,473	15,168	8,079	10,346	9,505	4,562
			372,139	352,893	277,376	295,050	283,073	125,061
Mines Serving Mine-Mouth Plants								
MT	Westmoreland	Rosebud	9,018	9,671	8,812	8,630	8,393	3,846
WY	Western Fuels	Dry Fork	5,374	6,369	6,141	6,046	6,304	2,457
WY	Wyodak	Wyodak	4,317	4,140	3,717	4,183	4,085	1,751
			18,709	20,181	18,671	18,858	18,782	8,054
Total			418,156	398,577	313,652	334,366	324,211	141,854

Producers have been reluctant to close operations because of the cost of mine reclamation and the limited financial resources of the companies. Recent events in the PRB industry are expected to change this dynamic. Two of the major

⁶ Source: Mine Safety and Health Administration Form 7000-2.

producers in the Wyoming PRB filed for bankruptcy protection in mid-2019 – Cloud Peak and Blackjewel. These companies produced 25 percent of the total Wyoming PRB output in 2018.

The Blackjewel bankruptcy triggered the former owner of these mines, Contura Energy, to offer to buy the mines back from the bankrupt estate. The mining permits had never been transferred from Contura to Blackjewel when the mines were sold in late 2017 and Contura still holds the reclamation liabilities under the permits. Contura has announced that it plans to repurchase the mines from bankruptcy “to get to a point where we can do a more orderly reclamation.”⁷ If Contura cannot reach an agreement to repurchase the mines, it may “move directly to a reclamation process.” Contura will explore opportunities to sell these mines to another company. It appears likely that the Blackjewel bankruptcy will result in reduced production at these two large mines, removing capacity from the PRB market, which will allow the remaining mines to operate more profitably.

As supply and demand return to balance, company profitability should return to historical levels. Exhibit 4 shows the reported financial results for the major public companies operating in the PRB. As recently as 2016, cash margins (EBITDA) for these companies ranged from \$2.19 to \$3.36 per ton. In the first half of 2019, the cash margin fell to just \$0.02 per ton. Margins should return to over \$2.00 per ton as excess capacity is reduced.

EXHIBIT 4: PRB SEGMENT OPERATING RESULTS FOR THE PUBLIC COAL COMPANIES⁸

	Arch Coal				Cloud Peak				Peabody			
	2016	2017	2018	H1 '19	2016	2017	2018	H1 '19	2016	2017	2018	H1 '19
1000 Tons \$/ton	76,736	80,604	79,542	34,289	58,488	57,438	49,700	21,670	113,136	125,030	120,306	50,300
Sales price	\$12.84	\$12.49	\$12.03	\$12.13	\$12.40	\$12.17	\$12.11	\$11.64	\$13.02	\$12.58	\$11.84	\$11.34
Cash cost	\$10.65	\$10.53	\$10.44	\$11.14	\$9.81	\$9.87	\$11.18	\$11.62	\$9.66	\$9.62	\$9.48	\$9.82
Cash margin	\$2.19	\$1.96	\$1.59	\$0.99	\$2.59	\$2.30	\$0.93	\$0.02	\$3.36	\$2.96	\$2.36	\$1.52
DD&A	\$1.44	\$0.51	\$0.42	\$0.47	\$0.60	\$1.35	\$1.11	\$0.57	\$1.09	\$1.51	\$1.52	\$1.44
Op. Income	\$0.75	\$1.45	\$1.17	\$0.52	\$1.99	\$0.95	(\$0.18)	(\$0.55)	\$2.27	\$1.45	\$0.84	\$0.08

The IEEFA report only focuses on the future revenues of the Cloud Peak mines, not the future profits.⁹ While the domestic demand for PRB coal has been declining, the profitability of the remaining producers is likely to increase.

Utility Policies to Procure Coal from Multiple Suppliers will Assist the Future Sales by Cloud Peak

The IEEFA reports admits that “Many utilities have spread their purchases among multiple mines owned by different producers.”¹⁰ Most customers prefer to purchase coal from multiple suppliers to increase the reliability of supply and maintain competition. Confusingly, IEEFA then describes this to be “an additional risk” that utilities will now decide to change their long-standing policies and purchase coal from only one supplier – the proposed Peabody-Arch joint venture.

Cloud Peak’s domestic sales to power plants are spread over a large group of customers and power plants (Exhibit 5).¹¹

⁷ Contura Energy Inc. Q2 2019 Earnings Call Transcript.

⁸ Source: SEC 10-K and 10-Q filings by the public companies.

⁹ IEEFA, S. Feaster and K. Cates, “Proposed Navajo Acquisition of Bankrupt U.S. Coal Company is an Ill-Timed Gamble” (August 2019) at 4.

¹⁰ IEEFA, S. Feaster and K. Cates, “NTEC Move to Buy Cloud Peak Mines Is an Increasingly Risky Wager” (September 2019) at 6.

¹¹ Source: EIA Form 923 data for 2018 <https://www.eia.gov/electricity/data/eia923/>.

EXHIBIT 5: CLOUD PEAK 2018 SALES TO DOMESTIC POWER PLANTS (1000 TONS)

Company	Plant	ST	Antelope	Cordero	Spring Ck
Detroit Edison	Belle River/St. Clair	MI			3,756
TransAlta	Centralia	WA			2,361
Alltec	Boswell	MN	769		660
Salt River Project	Coronado	AZ	1,584		563
Wisconsin Energy	Presque Isle	MI	220		261
Alabama Power	Miller	AL	1,993		
Alliant Energy	Columbia	WI	69	563	
Alliant Energy	Edgewater	WI	271	270	
Alliant Energy	Ottumwa	IA	152	440	
Alliant Energy	Prairie Creek	IA	44		
Ameren	Labadie	MO	414		
Ameren	Meramec	MO	141		
Ameren	Rush Island	MO	236		
Ameren	Sioux	MO	209		
Basin Electric	Laramie River	WY	1,490		
Cleco	Brame 2	LA	392		
Consumers Power	Campbell	MI	590		
Consumers Power	Karn	MI	637		
Dairyland Power	Genoa	WI	413		
Dairyland Power	Madgett	WI	149		
Detroit Edison	Monroe	MI	864		
Detroit Edison	River Rouge	MI	78		
Detroit Edison	Trenton Channel	MI	77		
Empire District Energy	Asbury	MO	230		
Entergy	Independence	AR	714	1,238	
Entergy	Nelson	LA		523	
Entergy	White Bluff	AR	451	875	
Kansas City P&L	Iatan	MO	213	261	
Kansas City P&L	La Cygne	KS	361	112	
Kansas City P&L	Lake Road	MO	61		
Kansas City P&L	Montrose	MO	31		
Kansas City P&L	Sibley	MO	329		
LCRA	Fayette	TX		15	
LS Power	Sandy Creek	TX		676	
MidAmerican Energy	George Neal North	IA	35		
MidAmerican Energy	George Neal South	IA	243		
MidAmerican Energy	Louisa	IA	244		
MidAmerican Energy	Walter Scott	IA	502		
Nebraska Public Power	Gentleman	NE		935	
NRG Energy	Parish	TX	91		
PacifiCorp	Dave Johnston	WY		994	
Platte River Power	Rawhide	CO	1,027		
Portland General Electric	Boardman	OR	0		
San Antonio CPS	Deely/Spruce	TX		4,019	
Starwood Energy	Plum Point	AR	2,124		
Sunflower Electric	Holcomb	KS	194		
Tri-State G&T	Springerville 3-4	AZ	45		
TVA	Gallatin	TN	320		
TVA	Kingston	TN	59		
TVA	Shawnee	KY	1,507		
Vistra	Coletto Creek	TX		297	
Vistra	Havana	IL		36	
Vistra	Hennepin	IL		10	
Vistra	Joppa	IL	2,110		
Vistra	Newton	IL	379		
Wisconsin Energy	Elm Road	WI	382	312	
Wisconsin Energy	Pleasant Prairie	WI	83	274	
Wisconsin Energy	South Oak Creek	WI	299	181	
Wisconsin Energy	Weston	WI	52	84	
Xcel Energy	Comanche	CO	453		
Xcel Energy	Tolk	TX	575		
Total			23,907	12,114	7,602

The likely changes in the supply of PRB coal will increase the attractiveness of Cloud Peak to customers seeking to diversify their supply sources. In the current market, there are only 5 large suppliers of Wyoming PRB coal to the commercial market (excluding mine-mouth power plants), as shown on Exhibit 6. With the bankruptcy of the Blackjewel mines and the proposed merger of the Peabody and Arch Coal mines, Cloud Peak will be the primary alternative for customers seeking multiple supply sources.

EXHIBIT 6: PRB COAL PRODUCTION BY COMPANY (1000 TONS)¹²

Company	2018	2019 H1
Commercial Markets		
Peabody	119,154	50,129
Arch Coal	79,122	34,286
Cloud Peak	49,533	21,534
Blackjewel	35,523	16,371
Kiewit	13,509	8,422
Lighthouse	4,760	1,560
Westmoreland	3,828	1,496
Subtotal	305,429	133,799
Mine-Mouth	18,782	8,054
Total	324,211	141,854

Rather than being “an additional risk” to the purchase of Cloud Peak, the utility policies to diversify their supply sources and the changes to PRB coal supply should be seen as an additional benefit to the future of the Cloud Peak mines.

Domestic Demand for PRB Coal will Continue for Decades

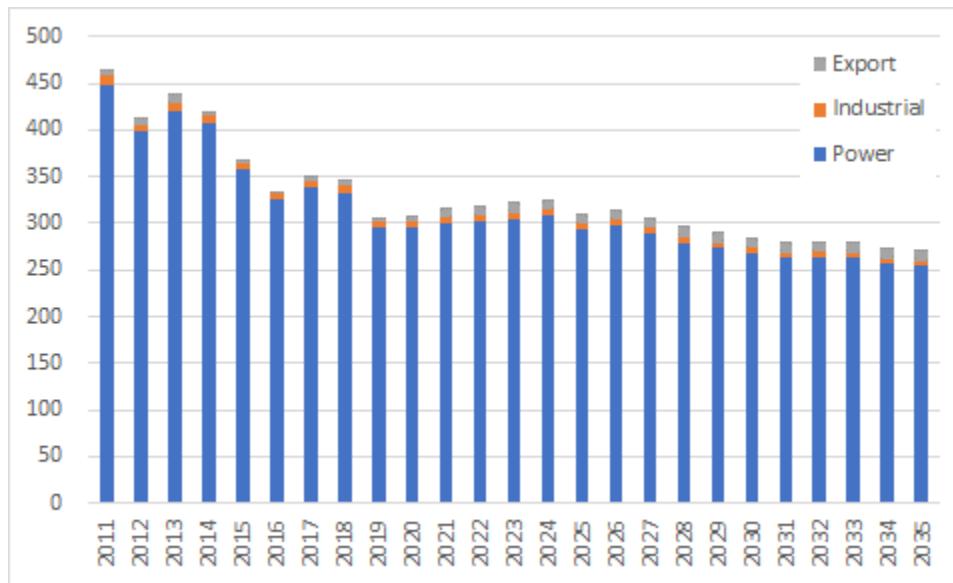
There has been a large decline in domestic demand for PRB coal in recent years, due to the closure of coal-fired power plants and the displacement of coal generation by natural gas plants and renewables (particularly wind power in Texas and the west central region of the country). Purchases of PRB coal for domestic power plants have fallen from about 407 million tons in 2014 to an estimated 295 million tons in 2019.

Domestic purchases of PRB coal are expected to continue to decline, but the pace of this decline will slow, as there are few new gas-fired plants being built to replace PRB coal plants in its market regions. While about 26,000 MW of PRB coal-fired plants retired in the period 2014 – 2019, only 10,000 MW of new retirements have been announced through 2025.

EVA’s forecast of PRB coal demand is for domestic demand to remain above 250 million tons through 2035, with modest growth in export markets, as shown on Exhibit 7.

¹² Source: Mine Safety and Health Administration Form 7000-2.

EXHIBIT 7: FORECAST OF PRB COAL DEMAND BY SECTOR (MILLION TONS)

Antelope Mine has Very High Quality Coal in the Wyoming PRB

The broad market for the Antelope mine coal is due to its very high coal quality. The Antelope mine has close to the highest average heat content (Btu per pound) and lowest average sulfur content (pounds sulfur dioxide per million Btu) of any mine in the Wyoming PRB. The high heat content is especially preferred at power plants that were originally designed for bituminous coal and switched to PRB coal to reduce emissions or cost. The low sulfur content is especially preferred at power plants which do not have expensive scrubbers to remove SO₂ from the flue gas.

EXHIBIT 8: AVERAGE 2018 COAL QUALITY FOR DELIVERIES OF PRB COAL BY MINE¹³

Producer	Mine	Tons	Btu	%S	Ash	#SO2
Wyoming Mines						
Arch Coal	Black Thunder	70,738	8,958	0.26	4.89	0.57
Cloud Peak	Antelope	24,056	8,845	0.23	5.49	0.52
Peabody	NARM	95,494	8,710	0.21	4.51	0.48
Blackjewel	Belle Ayr	17,453	8,573	0.23	4.48	0.55
Peabody	Caballo	11,269	8,508	0.33	5.10	0.77
Kiewit	Buckskin	13,137	8,459	0.30	4.81	0.71
Cloud Peak	Cordero	12,114	8,438	0.29	5.27	0.69
Blackjewel	Eagle Butte	14,748	8,311	0.37	4.94	0.89
Arch Coal	Coal Creek	8,085	8,293	0.35	6.02	0.85
Peabody	Rawhide	11,341	8,196	0.35	6.01	0.87
Western Fuels	Dry Fork	6,273	8,048	0.31	4.95	0.77
Wyodak Resources	Wyodak	2,254	8,035	0.51	6.19	1.27
Montana Mines						
Lighthouse	Decker	3,005	9,438	0.35	4.40	0.74
Cloud Peak	Spring Creek	7,602	9,364	0.33	4.35	0.71
Westmoreland	Absaloka	3,633	8,552	0.56	9.65	1.32
Westmoreland	Rosebud	7,619	8,522	0.69	9.57	1.63

¹³ EIA Form 923 data – average quality for Spring Creek mine excludes high-ash sales to the Centralia power plant.

The high heat content reduces the delivered cost of coal, because the transportation cost is lower (the cost is the same per ton, but because there is more heat content per pound, the transportation cost is lower per million Btu). As a result, PRB coal with high heat content sells for a significantly higher price at the mine than lower heat content coals. Typically, coal with 8,800 Btu per pound sells at a mine price of at least \$2.00 per ton more than coal with 8,400 Btu per pound. Since these mines have similar production costs, high Btu mines like Antelope are more profitable than lower Btu mines and the lower Btu coal mines are the ones closing to balance supply and demand.

Spring Creek Mine has Positive Export Market Opportunities

Alone among the PRB coal mines, Spring Creek mine has significant upside potential from the export market. Spring Creek is uniquely situated to supply the export market because of its location (closer to the export port in Vancouver, Canada – which means lower rail rates) and high heat content (the high Btu coal has the effect of reducing the transportation costs per million Btu delivered to the customer). Because the freight costs to the primary customers in Japan and South Korea are the largest share of the delivered cost, the high Btu content of Spring Creek coal makes it significantly less costly than the Wyoming PRB coal mines (9,350 vs. 8,800 Btu per pound).

The only mine with similar location and coal quality is the Decker mine, but Decker has higher mining costs and limited reserves. According to the data filed with the Mine Safety and Health Administration, the productivity of the Spring Creek mine (tons per hour worked) was over twice the productivity at the Decker mine in 2018 and 2019 – an indication of the relative cost of production.

Export coal sales to Asia have been a significant market for the Spring Creek mine since the demand emerged in 2010. Sales of Spring Creek coal to Asian customers have been between 4.0 and 4.7 million tons for the last 8 years, except for a slump in the market in late 2015 and early 2016. Spring Creek sales are shown on Exhibit 9.¹⁴

EXHIBIT 9: SPRING CREEK COAL SALES (MILLION TONS)

Market	2011	2012	2013	2014	2015	2016	2017	2018
Domestic	14.4	12.8	13.3	13.4	13.4	9.8	8.4	9.3
Export	4.7	4.4	4.7	4.0	3.6	0.6	4.2	4.6
Total	19.1	17.2	18.0	17.4	17.0	10.4	12.6	13.9

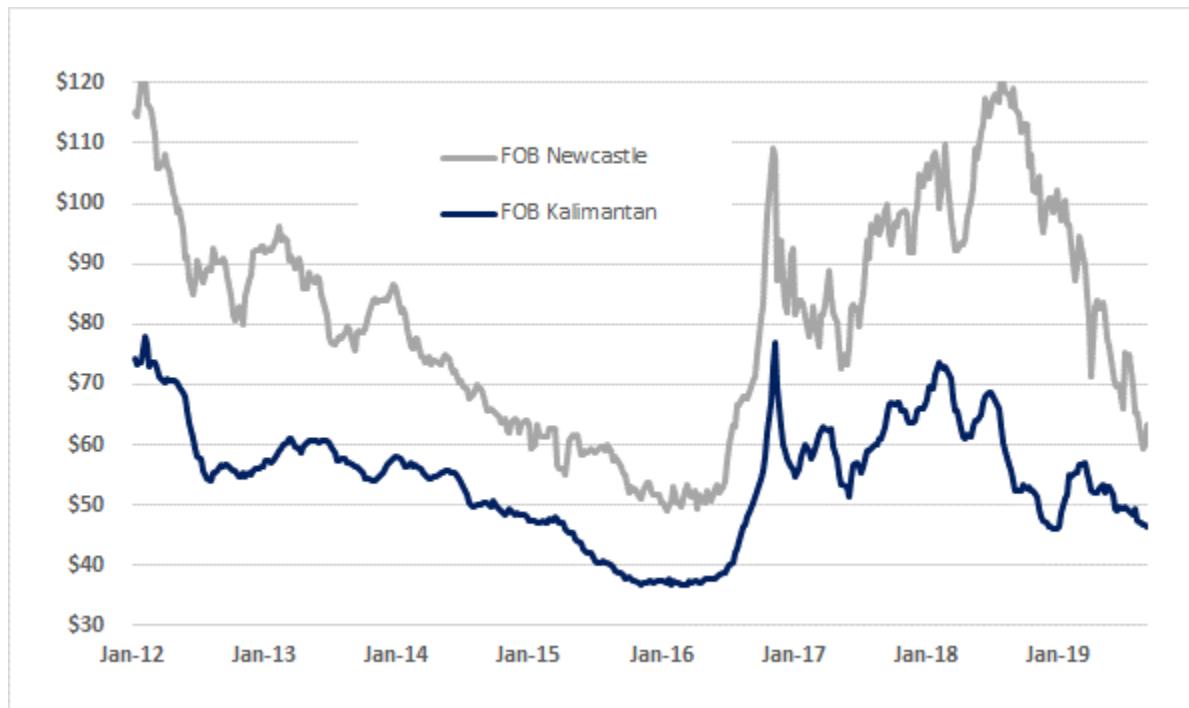
The competitiveness of Spring Creek exports is tied to the market price for thermal coal in Asia. The Spring Creek coal quality is similar to Indonesian coal with heat content of 5,000 kcal per kg (equal to 9,000 Btu per pound). Indonesian coal is the primary supply of thermal coal to the Asian market. Thermal coal exports from Indonesia have grown to 435 million tonnes in 2018, supply over 40% to the total world thermal market (1.06 billion tonnes) in 2018.¹⁵ Out of the total thermal coal exports from Indonesia, 315 million tonnes are the lower rank subbituminous and lignite (3,200 – 5,000 kcal per kg) coals. Indonesian subbituminous coal is the principal source of thermal coal for new power plants under construction across Asia, including Japan, South Korea, China, Vietnam, India, Bangladesh, Sri Lanka, Thailand and Pakistan. Subbituminous coal from the PRB (Spring Creek and Decker) is a small share of this total market supplied by similar Indonesian coal.

The market price for Spring Creek exports FOB port in Vancouver tracks the market price for Indonesian 5,000 kcal coal. The published spot market price index for the primary thermal coals sold to Asia (Australian 6,300 kcal bituminous coal sold FOB Newcastle and Indonesian 5,000 kcal subbituminous coal sold FOB Kalimantan) are shown on Exhibit 10.

¹⁴ Source: Cloud Peak SEC Forms 10-K for the years 2011 – 2018.

¹⁵ Source: International Energy Agency, “Coal Information 2019”.

EXHIBIT 10: ASIAN COAL MARKET PRICES (\$ PER METRIC TON)



The Kalimantan coal price index generally tracks the Australian price index, but it trades within a narrower range. When world bituminous prices are high as they were in late 2018, Australian prices reached a high of \$120 per tonne, but Indonesian prices peaked at about \$70 per tonne. However, while there was a large drop in Australian prices to \$60 per tonne in mid-2019, Indonesian prices did not fall far below \$50 per tonne. The price of \$47 - \$50 per tonne for Indonesian subbituminous coal reflects a price “floor” based on production costs and price have only fallen below this level during the major slump in world market prices from mid-2015 to mid-2016.

Spring Creek coal is economic to export when Indonesian prices are above about \$53 per tonne, which has been the case for most of the period since January 2010 (prices have averaged \$58 per tonne over this period). While the Kalimantan price has fallen to \$47 per tonne in mid-2019, the market is expected to recover to normal historical levels by 2020.

Spring Creek has the ability to increase exports to Asia above its historical level of 4 -5 million tons per year. In the past, exports have been limited by the available capacity of the Westshore Terminal in Vancouver. Westshore has nominal export capacity of 33 million tonnes per year but has not exported above 31 million tonnes per year due to operational issues. With contract commitments of 19 million tonnes per year with Teck Resources (the largest metallurgical coal producer in Canada), only about 12 million tonnes per year has been available for US thermal coal exports. About half of this capacity is contracted with Signal Peak's bituminous coal mine in Montana, leaving about 6 million tonnes per year for PRB coal exports from Spring Creek and Decker. Estimated exports through Westshore by source are shown on Exhibit 11.¹⁶

¹⁶ Sources: Westshore Terminal Annual Information Forms 2013 – 2018, Port of Metro Vancouver monthly export data, and US Department of Commerce monthly export data.

EXHIBIT 11: COAL EXPORTS THROUGH WESTSHORE TERMINAL (MILLION TONNES)

Mine	2013	2014	2015	2016	2017	2018
Metallurgical	17.9	18.6	19.4	19.0	17.7	17.5
Teck	16.5	17.2	19.1	19.0	17.7	17.4
Grande Cache	1.4	1.5	0.4	-	-	0.1
Thermal	12.0	11.6	9.2	6.6	11.1	12.7
Spring Creek	4.1	4.0	3.6	0.8	4.3	4.5
Decker	-	-	0.1	0.2	1.1	1.5
Signal Peak	7.6	6.5	5.5	5.6	5.6	6.7
Coal Valley	0.2	1.2	-	-	-	-
Pet Coke	0.3	0.3	0.3	0.2	0.2	0.2
Total	30.1	30.6	28.8	25.8	29.0	30.5

Cloud Peak has the opportunity to increase exports of Spring Creek coal through Westshore beginning in 2021. Teck is expanding its owned Neptune Terminal in Vancouver by 8 million tonnes per year in 2021 and plans to reduce its shipments through Westshore. Cloud Peak has increased its contracted share of shipments through Westshore to 10.5 million tons per year beginning in 2021 to take advantage of this opportunity. Exports to the growing thermal coal market in Asia will be the majority of sales from Spring Creek beginning in 2021 with the potential for high profitability if Kalimantan prices return to their average historical level of \$55 - \$60 per tonne.